



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,610	05/25/2005	David Pasquier	PET-2169	7124
23599	7590	06/15/2010		
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER				
LIGHTFOOT, ELENA TSOY				
ART UNIT		PAPER NUMBER		
1715				
NOTIFICATION DATE		DELIVERY MODE		
06/15/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

Office Action Summary

Application No.

10/516,610

Applicant(s)

PASQUIER ET AL.

Examiner

ELENA Tsoy LIGHTFOOT

Art Unit

1715

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-14, 16-37 and 39-43 is/are pending in the application.
4a) Of the above claim(s) 7, 11, 20, 30-37 and 39-41 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 4-6, 8-10, 12-14, 16-19, 21-29, 42 and 43 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-918)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Response to Amendment

Amendment filed on May 3, 2010 has been entered. Claims 1, 2, 4-14, 16-37, and 39-43 are pending in the application. Claims 7, 11, 20, 30-37, and 39-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claims examined on the merits are 1, 2, 4-6, 8-10, 12-14, 16-19, 21-29, 42, and 43.

Abstract

The Abstract filed on May 3, 2010 is not proper because it is not limited to a single paragraph on a separate sheet within the range of 50 to 150 words. Note also that the Abstract describes claimed method twice. It is advised to describe the claimed method in the Abstract only once.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specification

Objection to the disclosure has been withdrawn due to Applicants' explanation.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Rejection of claim 16 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Rejection of claims 24-26, 28, 29, 42 and 43 under 35 U.S.C. 103(a) as being unpatentable over Pause (US 7488773) has been withdrawn due to amendment.
5. Claims 1, 2, 4, 5, 8, 10, 12-14, 17-19, 21, 22, 24-26, 28, 29, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pause (US 7488773) in view of Kilgour et al (US 6,262,170) for the reasons of record set forth in paragraphs 4-5 of the Office Action mailed on 2/1/2010 because amended claim 24 recites now a compatibilizing agent.

Art Unit: 1715

6. Claims 6, 9, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pause '773 in view of Kilgour et al '170, as applied above, and further in view of Salyer (US 5,053,446) for the reasons of record set forth in paragraph 6 of the Office Action mailed on 2/1/2010.
7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pause '773 in view of Kilgour et al '170, as applied above, further in view of Hupfield (US 7019098) for the reasons of record set forth in paragraph 7 of the Office Action mailed on 2/1/2010.
8. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pause '773 in view of Kilgour et al '170, as applied above, further in view of Craubner (US 4348243) for the reasons of record set forth in paragraph 8 of the Office Action mailed on 2/1/2010.
9. Claims 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pause '773 in view of Kilgour et al '170, as applied above, further in view of Vergouw (US 4941773) for the reasons of record set forth in paragraph 9 of the Office Action mailed on 2/1/2010.

Response to Arguments

Applicant's arguments filed May 3, 2010 have been fully considered but they are not persuasive.

Rejection Under 35 U.S.C. 103

Pause

Applicant asserts that the preamble recitation of insulating the flowline or pipeline in claim 24 should be given patentable weight because the recitation occurs not only in

Art Unit: 1715

the preamble but also in the body of claim 24. Pause discloses a method for thermal insulation of cables or thermal protection of technical products employing this silicone rubber matrix containing the finely divided phase change materials, emulsified or dispersed in a cross-linked silicone rubber structure. See column 3, lines 16-28. This disclosure does not suggest the present claims.

The Examiner respectfully disagrees with this argument. As Applicant points out, Pause does disclose a thermal insulation of cables or thermal protection of **technical products** (See column 3, lines 26-28). Note that Pause does not limit **"technical products"**. Therefore, it would be obvious to one of ordinary skill in the art to use the method of Pause for thermally protecting any **"technical products"** known to have thermal insulation coverage including claimed flowlines and pipelines, especially considering the fact that it is conventional to protect power cables by placing them into pipelines and thermally insulate the pipelines, as evidenced by Vergouw.

Pause in view of Kilgour

Applicant requests reconsideration of the rejection over Pause in view of Kilgour because Kilgour does not remedy the deficiency of Pause, inasmuch as it is directed to a non-analogous art area. Kilgour discloses a silicone elastomer gel emulsion/composition usable in the cosmetic field (see column 1, lines 59-61 and column 7, lines 65 to column 8, line 10 and examples 9 (make-up) and 13-14 (anti-perspirant)). The silicon elastomer of Kilgour is better dispersed in the organic liquid used in the emulsion or the composition (see column 1, lines 52- 53). The organic liquid is defined in column 7, lines 15-24, as specifically suitable for a cosmetic emulsion/composition, and is used at ambient temperature. One of ordinary skill in the art would not have combined this disclosure in Kilgour directed to cosmetics to an insulating agent such as liquid silicon rubber as described in Pause, wherein it is necessary to reduce the risk of demixing between an insulating base and polysiloxane so as to obtain thermal insulation having improved insulating quality, and stability over time and a wide temperature range.

The Examiner respectfully disagrees with this argument. First of all, properties of a chemical compound depend on the structure of the chemical compound not on its intended use. Following the Applicant's logic, even though the reference is found in the beverage art teaching that ethanol mixes well with water for the use of the resulting ethanol/water mixture in beverages, one of ordinary skill in the art should not expect for

Art Unit: 1715

the ethanol to mix well with water if the mixture is for the use in a cosmetic composition because the reference is directed to a non-analogous beverage art area.

Kilgour et al teaches that a silicone elastomer formed by cross-linking hydrosilylation reaction (in the presence of platinum catalyst – See column 5, lines 14-15) of an alkenyl functional silicone compound, a silylhydride functional silicone compound; and one or more α , β -unsaturated alkenes exhibits hydrolytic stability, compatibility with organic media (See column 1, lines 20-55) such as C₁₀-C₂₄ alkanes being liquid at 20°C-50°C (See column 7, lines 14-17, 37-40), e.g. isododecane (See column 9, lines 47-54). Therefore, one of ordinary skill in the art would have reasonable expectation of success in achieving stable homogeneous mixture while mixing a silicone elastomer (formed by cross-linking hydrosilylation reaction in the presence of platinum catalyst of an alkenyl functional silicone compound, a silylhydride functional silicone compound) with C₁₀-C₂₄ alkanes, e.g. isododecane, in the presence α , β -unsaturated alkenes, whether the above components were mixed for cosmetic purposes or for pipe protection as long as chemical structures of the components are the same. Thus, in contrast to Applicants argument, Kilgour does remedy the deficiency of Pause.

Pause, Kilgour and Salyer

Applicant requests reconsideration of the rejection over Pause, Kilgour and Salyer because Salyer, cited purely for its disclosure of various phase change materials, provides no remedy to the deficiencies of Pause and Kilgour discussed above. Salyer, cited purely for its disclosure of various phase change materials, provides no remedy to this deficiency. In Salyer, patentees' process involves cross-linking of the matrix, then phase change material is subsequently added, and incorporated into the cross-linked matrix by immersing the matrix into a bath of melted phase change material. Not only does Salyer fail to disclose a process in which the phase change material is added in a polysiloxane resin during the cross-linking step, but Salyer fails to disclose the use of a compatibilizing agent in order to improve the stability of the insulating gel over the time.

The Examiner respectfully disagrees with this argument. Pause teaches that, in principle, all phase change materials with phase transition temperatures in the required temperature ranges, e.g. in the range of 20°C-100°C depending on application can be used for incorporation into the silicone rubber matrix (See column 3, line 65 to column 4,

line 8). Applicant is correct about Salyer that it is cited purely for its disclosure that claimed phase change materials for the use in a **crosslinked** polymer matrix were known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used crystalline fatty acids of Salyer in Pause instead of crystalline alkyl hydrocarbons since Salyer teaches that crystalline organic compounds such as crystalline alkyl hydrocarbons, crystalline **fatty acids**, crystalline fatty acid esters, crystalline alicyclic hydrocarbons, and crystalline aromatic hydrocarbons are phase change materials suitable for the use in a **crosslinked** polymer matrix, and Pause does not limit its teaching to particular phase change materials. Moreover, it is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

Pause, Kilgour and Hupfield

Reconsideration of this rejection is also respectfully requested. Hupfield does nothing to remedy the deficiencies of Pause and Kilgour, discussed above. Hupfield is cited solely for its disclosure of anti-bacterial agents used in insulating materials. In fact, Hupfield does not relate to the field of flow lines or pipeline thermal insulation.

The argument is unconvincing because anti-bacterial properties of the insulating material would not depend on which object the material is placed. The anti-bacterial agents in insulating materials would be effective whether the insulating materials are placed on a cable or on any other object including pipeline.

Pause, Kilgour and Craubner

Craubner also fails to remedy the deficiencies of Pause and Kilgour and indeed is cited only for its disclosure of biocides. Although Craubner discloses a method for thermally insulated a pipeline consisting in surrounding the pipeline with an insulated material, which material comprises a plurality of contiguous hollow structures whose interstices are filled with a polysiloxane elastomer (line 35- 39 page 2), Craubner fails to describe an isolated gel comprising an insulating liquid base which is a phase change material, a gelling agent comprising at least one polysiloxane resin and a compatibilizing agent. Furthermore, Craubner fails to describe that additives are soluble in the liquid base. As a result, Craubner fails to remedy the deficiencies of the primary

Art Unit: 1715

and secondary references, and withdrawal of this rejection is also respectfully requested.

The Examiner respectfully disagrees with this argument. Craubner is a secondary reference which is relied upon to show that an insulating composition may contain *biocides* (See column 3, line 8) and *hollow glass microspheres to provide thermal and flame resistance* (See column 2, lines 32-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added antibacterial agents and hollow glass microspheres to an insulating composition of Pause '773 in view of Kilgour et al '170 with the expectation of providing the desired antibacterial properties and thermal and flame resistance, as taught by Craubner. Therefore, it is irrelevant whether Craubner teaches a compatibilizing agent or other limitations of claims which are already taught by Pause and Kilgour, or not.

Pause taken with Vergouw

As noted above, Pause, even in combination with Kilgour (not used in the present rejection) fails to disclose the use of a compatibilizing agent in combination with an insulating composition such as that of the claims. Vergouw does not describe an insulating liquid base which is a phase change material, gelling agent with at least one polysiloxane resin and a compatibilizing agent, but instead discloses a gel based on kerosene having increased viscosity when stirred. As a result, regardless of its teaching of the installation of power cables, this reference even in combination fails to suggest insulation of a pipeline with a combination of ingredients as claimed. Withdrawal of this rejection is accordingly respectfully requested.

The Examiner respectfully disagrees with this argument. Vergouw is a secondary reference which is relied upon to show that power cables may be thermally insulated by placing the power cables **into pipeline** which is covered with an insulation composition. Therefore, it is irrelevant whether Vergouw teaches other limitations of claims (which are already taught by Pause and Kilgour) or not.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELENA Tsoy LIGHTFOOT whose telephone number is (571)272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/516,610

Page 10

Art Unit: 1715

Elena Tsoy Lightfoot, Ph.D.

Primary Examiner

Art Unit 1715

June 12, 2010

/Elena Tsoy Lightfoot/